

Claims

1. A composite panel system (10, 110, 210, 310, 410) comprising at least two panel elements (11, 12) of the same or different brittle materials, in particular glass, wherein the panel elements (11, 12) are joined superficially to one another by an intermediate layer (14) of an adhesive plastic, characterized in that a reinforcing element (15, 115, 215, 315, 415) is embedded in the intermediate layer, and that the composite panel system (10, 110, 210, 310, 410) is retained mechanically fastenably and/or its reinforcing element (15, 115, 215, 315, 415) is retained mechanically coupleably on a support structure (31, 131, 231).

2. The composite panel system of claim 1, characterized in that a rigid fastening device (33) is provided, whose fastening zone embracing the composite panel system has a size which even if the composite panel system breaks assures reinforcing anchoring.

3. The composite panel system of claim 1 or 2, characterized in that the fastening device is provided either continuously or intermittently along one edge of the composite panel system.

4. The composite panel system of at least one of claims 1-3, characterized in that the fastening device is provided in the form of a clamping construction with high transverse pressure.

5. The composite panel system of at least one of claims 1-4, characterized in that the reinforcing element

(15) is connectable inside the panel (10) to the support structure.

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6. The composite panel system of at least one of claims 1-4, characterized in that the reinforcing element (15) on at least one edge of the panel extends out of the panel (10) and is connectable on its outer periphery to the support structure.

7. The composite panel system of at least one of claims 1-6, characterized in that the reinforcing element (15) is provided over the entire surface of the panel (11, 12).

8. The composite panel system of at least one of claims 1-7, characterized in that the reinforcing element (15) is of glass fibers or carbon fibers.

9. The composite panel system of at least one of claims 1-7, characterized in that the reinforcing element (15) is of metal.

10. The composite panel system of at least one of claims 1-9, characterized in that the reinforcing element (15) is formed by a woven fabric.

11. The composite panel system of at least one of claims 1-9, characterized in that the reinforcing element (15) is a grid.

12. The composite panel system of at least one of claims 1-9, characterized in that the reinforcing element

(15) is formed by ribbons, rovings, yarns, cords, twisted yarns, threads, or the like.

13. The composite panel system of claim 12, characterized in that the ribbons, rovings, yarns, cords, twisted yarns, or threads are extended out of the panel (11, 12) in one direction or in directions perpendicular to one another in a meander pattern.

5 14. The composite panel system of at least one of claims 1-9, characterized in that the reinforcing element (15) is formed by a thin metal sheet.

15. The composite panel system of claim 14, characterized in that the thin metal sheet is provided with perforations or similar stamped features, by which the support structure is guided.

16. The composite panel system of at least one of claims 1-9, characterized in that the reinforcing element (15) is profiled.

5 17. The composite panel system of at least one of claims 1-15, characterized in that the intermediate layer (14) comprises two partial layers (14', 14''), and that the reinforcing element (15) is placed between the two partial layers (14', 14'').

18. The composite panel system of at least one of claims 1-15, characterized in that the reinforcing element (15) is placed between two panel elements (11, 12) that are kept spaced apart and is potted, forming the intermediate

5 layer (14).

19. The composite panel system of at least one of claims 1-18, characterized in that it is embodied as an overhead glazing.

20. The composite panel system of at least one of claims 1-18, characterized in that it is embodied as a glazing that can be walked on or that secures against collapse.